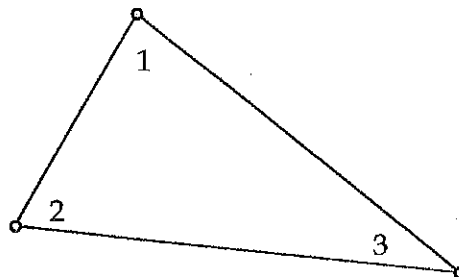


Chapter 4: Triangles / Polygons
Lesson 4-1: Triangle Fundamentals
Homework

name _____
 date _____
 period _____

1. If $m\angle 1 = 28^\circ$ and $m\angle 2 = 67^\circ$, find $m\angle 3$. _____
2. If $m\angle 1 = 107^\circ$ and $m\angle 3 = 37^\circ$, find $m\angle 2$. _____
3. If $m\angle 2 = 34^\circ$ and $m\angle 3 = 67^\circ$, find $m\angle 1$. _____
4. If $m\angle 1 = 16^\circ$ and $m\angle 2 = 35^\circ$, find $m\angle 3$. _____
5. If $m\angle 3 = 88^\circ$ and $m\angle 2 = 47^\circ$, find $m\angle 1$. _____



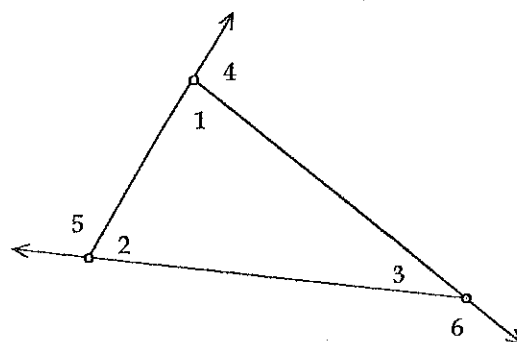
6. If $m\angle 1 = x + 30$, $m\angle 2 = x - 23$ and $m\angle 3 = 2x - 7$, find x and the value of each numbered angle.
 $x =$ _____, $m\angle 1 =$ _____, $m\angle 2 =$ _____, $m\angle 3 =$ _____

7. If $m\angle 1 = 9x$, $m\angle 2 = 2x$ and $m\angle 3 = 7x$, find x and the value of each numbered angle.
 $x =$ _____, $m\angle 1 =$ _____, $m\angle 2 =$ _____, $m\angle 3 =$ _____

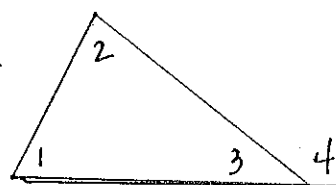
8. If $m\angle 1 = 3x + 20$, $m\angle 2 = 2x - 25$ and $m\angle 3 = 5x + 10$, find x and the value of each numbered angle.
 $x =$ _____, $m\angle 1 =$ _____, $m\angle 2 =$ _____, $m\angle 3 =$ _____

use Exterior Angle Theorem - p 190

9. If $m\angle 1 = 72^\circ$ and $m\angle 3 = 25^\circ$, then $m\angle 5 =$ _____.
10. If $m\angle 2 = 61^\circ$ and $m\angle 3 = 21^\circ$, then $m\angle 4 =$ _____.
11. If $m\angle 1 = 80^\circ$ and $m\angle 2 = 73^\circ$, then $m\angle 6 =$ _____.
12. If $m\angle 4 = 103^\circ$ and $m\angle 3 = 18^\circ$, then $m\angle 2 =$ _____.
13. If $m\angle 5 = 99^\circ$ and $m\angle 3 = 32^\circ$, then $m\angle 1 =$ _____.
14. If $m\angle 2 = x + 10$, $m\angle 3 = x$ and $m\angle 4 = 100^\circ$, then $x =$ _____.



*Ext.
Angle
Theorem*



$m\angle 1 + m\angle 3 = m\angle 4$
 Sum of the Remote interior angles = exterior angle